Frequently Asked Questions
About the Coliseum Boulevard Plume

What is the Coliseum Boulevard Plume?
The Coliseum Boulevard Plume is an area of groundwater under Montgomery that contains a chemical called TCE. It is in the Coliseum Boulevard area.

The Alabama Department of Environmental Management (ADEM) is studying the plume. ADEM will continue working to learn how far and how deep the plume is.
At this time, we know:
- the plume is under parts of Vista View, Eastern Meadows, and Chisholm.
- it lies under about 600 acres of land.
- the land over the plume has homes, businesses, a community center, a school, and the zoo.
- some of the land over the plume is vacant, or not developed.

Please see the map that was included in this bag to find the location of the plume.

What is groundwater?
Groundwater in Montgomery is simply water that fills spaces between grains of sand, rocks, and in rock fractures under the ground surface. Most groundwater comes from rain that soaks down into the ground. Groundwater is usually moving; it flows from higher to lower levels because of gravity. Groundwater flows slowly and is not exposed to light or air, which would help to clean some kinds of chemicals from water.

A groundwater **plume** is formed when a chemical soaks into the ground and forms a pool. Groundwater that flows by or through the plume can spread the chemical.

When flowing groundwater reaches a place where the ground surface is low, the water can seep out to the surface and combine with runoff from rain. **Surface water** is water that has seeped into a ditch, stream, or spring and stayed above ground.

What is TCE?
TCE stands for trichloroethylene (trī-klôr′ō-ĕth′ə-lēn′). It is a clear liquid that does not burn. TCE has a sweet smell and evaporates quickly in air. TCE is heavier than water and tends to sink so it can move down through groundwater quickly and build up. TCE works very well to dissolve grease, oil, fat, wax, and tar.

How is TCE used?
Most TCE is used by industry as a solvent to clean grease off metal. Industries also use TCE to work with paints, varnishes, paint strippers, lubricants, fabrics, pesticides, and petroleum produces. Some household products like paint removers, spot removers, rug cleaners, adhesives, and typewriter correction fluid have TCE in them.

How can TCE get into groundwater?
TCE usually gets into groundwater when industries release liquid waste onto the ground or when TCE leaches out of landfills. The TCE soaks down through the soil and groundwater to form a plume. To find the source, ADEM looks at the industries that have operated in the area of the Coliseum Boulevard Plume. They look at the industry's use and disposal of TCE. Some of these industries include the Alabama Department of Transportation, Materials and Tests Laboratory, the Alabama Department of Finance, Printing and Publications, and the former Kilby Prison. We do not know of any landfills in the area.

Has the TCE stayed underground?
Not all of it. Some TCE has been found in surface water in the ditch between Coliseum Boulevard and Vista View. Because that ditch had water in it even in the drought, we think it is groundwater that is seeping out of the ground nearby.

What is being done about the plume?
The Alabama Department of Public Health (ADPH) and the Alabama Department of Environmental Management (ADEM) are working together on the plume. We want you to enjoy a good area to live and work. ADPH is studying health concerns and ADEM is studying the environment. However, we need your help.

Right now, we need your ideas on keeping people out of the ditch between Coliseum Boulevard and Vista View. We have proposed a draft plan to limit public access along the ditch so that people (especially children) cannot get into the ditch and come in contact with contaminated water. This is a **draft** plan and we need your input to know if this plan will be effective or if it would cause problems for the community.

What are your concerns about my neighborhood?
- ➢ Because groundwater has TCE in it, we are concerned about anyone who may be using water from a private well.
- ➢ Because water in the ditch between Coliseum Boulevard and Vista View has some TCE in it, we are concerned that people who go into the ditch could be exposed to TCE.

Why do you want to meet with me?

First, we want to tell you what we know about the plume and how you how can avoid it.

We can show you where TCE has been found and what we still need to test.

We can also tell you what we are doing so you will know what to expect from us.

Second, we want to ask about your concerns and what you know about the area.

We need to know how our work will affect you and how you want to be involved.

We may need to ask your permission to test on your property.

We also need to know about people going in the ditches and about any private wells in the neighborhood.

Could I be exposed to the TCE?

When a substance is released from its source, it enters the air, soil, or water. People are **not** always exposed to the substance. You can only be exposed by breathing, eating or drinking, or skin contact. When we learn that a substance has been released, we talk with people to find out if they might be exposed.

Because TCE is in the groundwater, we are asking people about private wells. You could possibly be exposed to TCE if you use private well water for drinking, bathing, or watering lawns. Because TCE has been found in the ditch water, we are asking people about their contact with the ditch. You could possible be exposed to TCE if you get water from the ditch on your body or clothes. If you have a private well or go into the ditch, please tell us.

If I am exposed to TCE, will it hurt me?

If you are exposed to TCE, many things affect whether it will hurt you. The first things to consider are how you are exposed, how much TCE actually gets into your body, and how many years you are exposed.

Then you must consider other chemicals you are exposed to, your age, sex, diet, family traits, lifestyle, and state of health. If ADPH learns that people have been exposed, we will help you understand any effect your exposure could have.

How can I keep my family safe?

At this time, our main concern is that children or adults who go into the ditch could possibly come in contact with contaminated water.

Please keep your family out of the ditch between Coliseum Boulevard and Vista View.

Is the city drinking water safe?

Yes. The city drinking water is supplied by the Montgomery Water Works and Sewer Board. The Water Works Board takes most of the city's drinking water (about 66 percent) from the Alabama River. They take the rest of the city's drinking water from 42 wells. The Water Works Board treats and cleans water taken from the river and the wells before they pump it to you. They are required to test drinking water for TCE and many other pollutants before they distribute water to citizens.

How can I get more information?

Come and talk with us on Tuesday, Nov. 14 or Thursday, Nov. 16.
You may also contact us at:

Alabama Department of Environmental Management
Office of Education and Outreach
1400 Coliseum Blvd.
P.O. Box 301463
Montgomery, AL 36130-1463
Phone: 334-394-4380
www.adem.state.al.us

Alabama Department of Public Health
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P.O. Box 303017
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Fax: 334-206-2012 fax

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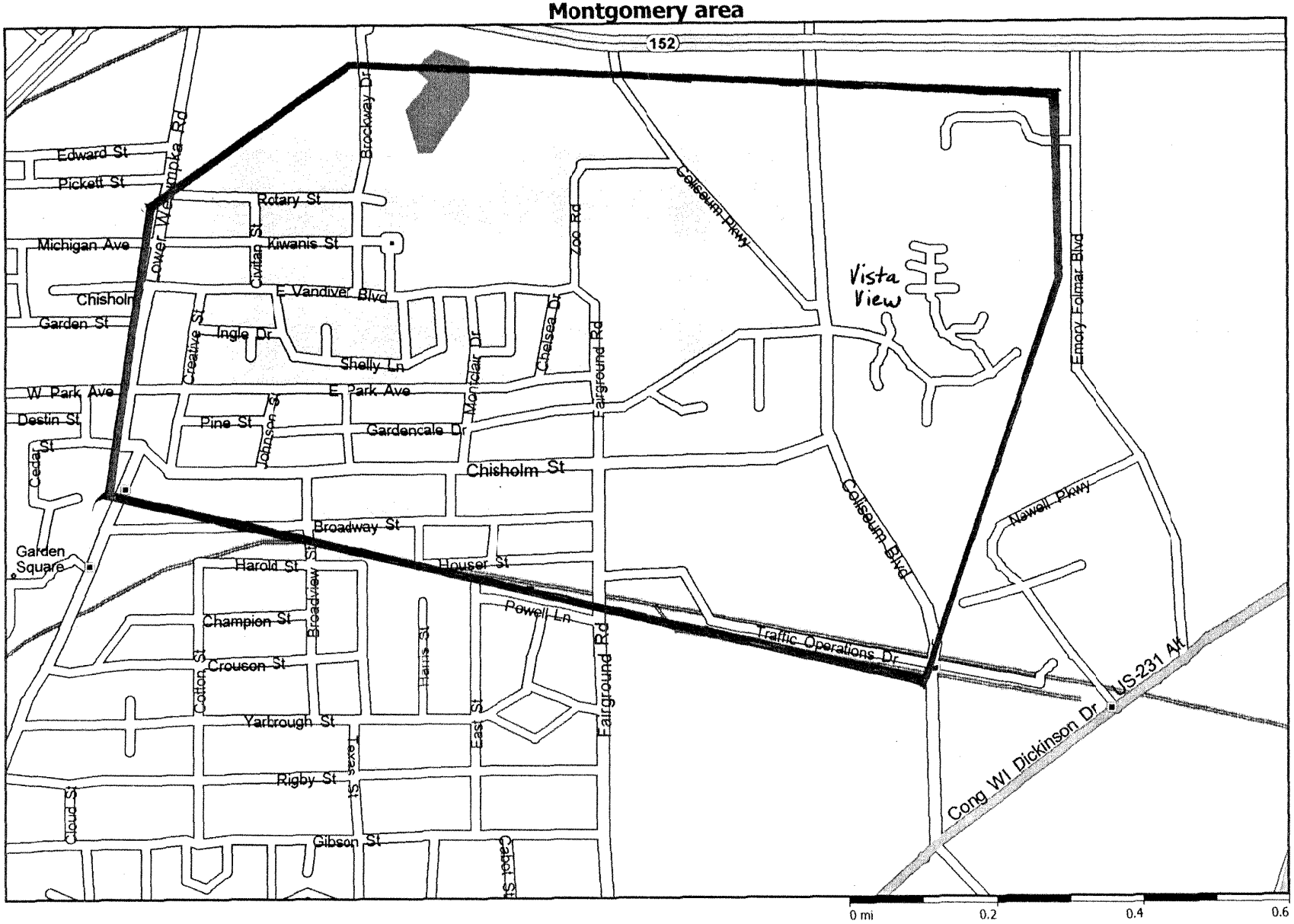
Alabama Department of Public Health November 2000

Montgomery area



ATSDR Plain Language Glossary of Environmental Health Terms

Absorption: How a chemical enters a person's blood after the chemical has been swallowed, has come into contact with the skin, or has been breathed in.

Acute Exposure: Contact with a chemical that happens once or only for a limited period of time. ATSDR defines acute exposures as those that might last up to 14 days.

Additive Effect: A response to a chemical mixture, or combination of substances, that might be expected if the known effects of individual chemicals, seen at specific doses, were added together.

Adverse Health Effect: A change in body function or the structures of cells that can lead to disease or health problems.

Antagonistic Effect: A response to a mixture of chemicals or combination of substances that is **less** than might be expected if the known effects of individual chemicals, seen at specific doses, were added together.

ATSDR: The **A**gency for **T**oxic **S**ubstances and **D**isease **R**egistry. ATSDR is a federal health agency in Atlanta, Georgia, that deals with hazardous substance and waste site issues. ATSDR gives people information about harmful chemicals in their environment and tells people how to protect themselves from coming into contact with chemicals.

Background Level: An average or expected amount of a chemical in a specific environment. Or, amounts of chemicals that occur naturally in a specific environment.

Biota: Used in public health, things that humans would eat – including animals, fish and plants.

CAP: See **C**ommunity **A**ssistance **P**anel.

Cancer: A group of diseases which occur when cells in the body become abnormal and grow, or multiply, out of control

Carcinogen: Any substance shown to cause tumors or cancer in experimental studies.

CERCLA: See **C**omprehensive **E**nvironmental **R**esponse, **C**ompensation, and **L**iability **A**ct.

Chronic Exposure: A contact with a substance or chemical that happens over a long period of time. ATSDR considers exposures of more than one year to be *chronic*.

Completed Exposure Pathway: See **Exposure Pathway**.

U.S. Environmental Protection Agency (EPA): The federal agency that develops and enforces environmental laws to protect the environment and the public's health.

Epidemiology: The study of the different factors that determine how often, in how many people, and in which people will disease occur.

Exposure: Coming into contact with a chemical substance.(For the three ways people can come in contact with substances, see **Route of Exposure**.)

Exposure Assessment: The process of finding the ways people come in contact with chemicals, how often and how long they come in contact with chemicals, and the amounts of chemicals with which they come in contact.

Exposure Pathway: A description of the way that a chemical moves from its source (where it began) to where and how people can come into contact with (or get exposed to) the chemical.

ATSDR defines an exposure pathway as having 5 parts:

1. Source of Contamination,
2. Environmental Media and Transport Mechanism,
3. Point of Exposure,
4. Route of Exposure, and
5. Receptor Population.

When all 5 parts of an exposure pathway are present, it is called a **Completed Exposure Pathway**. Each of these 5 terms is defined in this Glossary.

Frequency: How often a person is exposed to a chemical over time; for example, every day, once a week, twice a month.

Hazardous Waste: Substances that have been released or thrown away into the environment and, under certain conditions, could be harmful to people who come into contact with them.

Health Effect: ATSDR deals only with **Adverse Health Effects** (see definition in this Glossary).

Indeterminate Public Health Hazard: The category is used in Public Health Assessment documents for sites where important information is lacking (missing or has not yet been gathered) about site-related chemical exposures.

Ingestion: Swallowing something, as in eating or drinking. It is a way a chemical can enter your body (See **Route of Exposure**).

Inhalation: Breathing. It is a way a chemical can enter your body (See **Route of Exposure**).

PRP: Potentially Responsible Party. A company, government or person that is responsible for causing the pollution at a hazardous waste site. PRP's are expected to help pay for the clean up of a site.

Public Health Assessment(s): See **PHA**.

Public Health Hazard: The category is used in PHAs for sites that have certain physical features or evidence of chronic, site-related chemical exposure that could result in adverse health effects.

Public Health Hazard Criteria: PHA categories given to a site which tell whether people could be harmed by conditions present at the site. Each are defined in the Glossary. The categories are:

- Urgent Public Health Hazard
- Public Health Hazard
- Indeterminate Public Health Hazard
- No Apparent Public Health Hazard
- No Public Health Hazard

Receptor Population: People who live or work in the path of one or more chemicals, and who could come into contact with them (See **Exposure Pathway**).

Reference Dose (RfD): An estimate, with safety factors (see **safety factor**) built in, of the daily, life-time exposure of human populations to a possible hazard that is <u>not</u> likely to cause harm to the person.

Route of Exposure: The way a chemical can get into a person's body. There are three exposure routes:
- breathing (also called inhalation),
- eating or drinking (also called ingestion), and
- or getting something on the skin (also called dermal contact).

Safety Factor: Also called **Uncertainty Factor**. When scientists don't have enough information to decide if an exposure will cause harm to people, they use "safety factors" and formulas in place of the information that is not known. These factors and formulas can help determine the amount of a chemical that is <u>not</u> likely to cause harm to people.

SARA: The Superfund Amendments and Reauthorization Act in 1986 amended CERCLA and expanded the health-related responsibilities of ATSDR. CERCLA and SARA direct ATSDR to look into the health effects from chemical exposures at hazardous waste sites.

Sample Size: The number of people that are needed for a health study.

Sample: A small number of people chosen from a larger population (See **Population**).